SPP 1757

# Heterogeneity of transmitter receptor-linked Ca2+ signals in astrocytes II

**Speaker:**

Professor Dr. Frank Kirchhoff
Universität des Saarlandes
CIPMM - Center for Integrative Physiology and Molecular Medicine

**Funding period:**

from 2014 to 2018

**Project description:**
Astrocytes represent a main cell population in the central nervous system. Although they are electrically non-excitable, they display a complex spatial and temporal pattern of Ca2+ signals. The complexity is not only restricted to the intracellular distribution, but varies also among adjacent astrocytes or astrocyte subpopulation. Here, we will study the modulation of these Ca2+ signals by astrocyte-expressed receptors that are responsive to a range of excitatory, inhibitory and modulatory transmitters. Inducible and astrocyte-specific gene recombination in combination with in vivo two-photon laser-scanning microscopy and electrophysiology will be employed to study the impact of the purinergic receptor subunit P2Y1, the NMDA-type glutamate receptor NR1, the GABAB receptor GB1 and the adenosine A1 receptor on mouse brain function and behavior.

Quelle:
https://gepris.dfg.de/gepris/projekt/255302235?language=en